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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/845,724	05/02/2001	Fuzhai Cui	2191/49928	3811

23911 7590 09/08/2004

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EXAMINER

NAFF, DAVID M

ART UNIT	PAPER NUMBER
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1651

DATE MAILED: 09/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/845,724

**Applicant(s)**

CUI ET AL.

**Examiner**

David M. Naff

**Art Unit**

1651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2004.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8, 11 and 12 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 1-3 is/are allowed.  
6) ☒ Claim(s) 4-8, 11 and 12 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

The amendment of 6/16/04 amended the specification and claims 1, 3, 4, 5 and 7.

Claims in the application are 1-8, 11 and 12.

5 In view of claims 1-3 being found allowable, and on further consideration of the restriction requirement, the restriction requirement is withdrawn, and claims 4-8, 11 and 12 are rejoined with claims 1-3.

Claims 4-8, 11 and 12 would be allowable if amended as suggested  
10 below to overcome the following rejection.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections - 35 USC § 112***

Claims 4-8, 11 and 12 are rejected under 35 U.S.C. 112, second  
15 paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 is unclear in line 2 of step (c) by not specifying whether the scale for 30<sup>0</sup> is centigrade or Fahrenheit.

20 Claims 5 (line 1) and claim 7 (bridging lines 1 and 2) are confusing and unclear by reciting "porous bone substitute or tissue engineering scaffold" since it is uncertain as to whether the bone substitute and tissue engineering scaffold differ, or are the same. It is further unclear as to whether "porous" applies to both the bone  
25 substitute and tissue engineering scaffold or to only the bone

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substitute. Additionally, it is unclear as to whether "scaffold" applies to both "porous bone substitute" and "tissue engineering" or only to tissue engineering. To be clear, it is suggested that "porous bone substitute or tissue engineering scaffold" be changed to ---

5 porous scaffold for use as a bone substitute or in tissue engineering ---.

In line 2 of claim 6, "such as" makes unclear as to whether the proteins are required. It is suggested that line 2 be amended by replacing ", such as" with --- selected from the group consisting of -  
10 --, replacing "and" with a comma, and changing "as well as" to --- and ---. In line 3, "multiple" should be deleted since the meaning of "multiple glycoproteins" is uncertain.

In line 1 of step (c) of claim 7, --- the solution --- should be inserted after "pouring" to be clear as to what is poured. In line 2  
15 of the step, the temperature scale (centigrade or Fahrenheit) for the temperature range recited should be specified.

In line 1 of step (d) of claim 7, "scaffold" should be replaced with --- solution --- since a scaffold does not result until after dioxane is removed. With this change, line 2 should be amended by  
20 after "dioxane" inserting --- to obtain said scaffold ---.

In line 1, claim 8 is confusing by reciting "porous bone substitute scaffold" which is inconsistent with the preamble of claim 7 on which claim 8 depends. It is suggested that "porous bone substitute scaffold" be replaced with --- porous scaffold --- to be  
25 consistent with the change to the preamble of claim 7 above.

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In line 3 of claim 11 and line 2 of claim 12, "claims" should be change to --- claim --- since the claims are alternative.

Claim 12 is unclear by not requiring a step of culturing as required in the preamble. It is suggested the claim be amended after  
5 "osteocytes" in line 2 by inserting --- , and culturing said osteocytes in the presence of said scaffold ---.

### **Conclusion**

Claims 1-3 are allowed.

Claims 4-8, 11 and 12 are free of the prior art.

10 **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date  
15 of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,  
20 however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David M. Naff whose telephone number is 571-272-0920. The examiner can normally be  
25 reached on Monday-Friday 9:30-6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Wityshyn can be reached on 571-272-0926. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

5 Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For  
10 more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David M. Naff  
Primary Examiner  
Art Unit 1651

15 DMN  
9/7/04